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 tctaacagat ctcagggcat ccccagagta tcttaccctc cttgtgcgca actgtcaacg 180
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gacctgcaag aaattgcata ggctcagagt agagagagga gatgatgatc nagaggtcctt 600
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 <213> Zea mays

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 Glu Asn Asp Glu Trp Ile Arg Glu Leu Ala Thr Ser Asn Ser Val Leu
 20 25 30
 Glu Thr Leu Asn Phe Phe Leu Thr Asp Leu Arg Ala Ser Pro Glu Tyr
 35 40 45
 Leu Thr Leu Leu Val Arg Asn Cys Gln Arg Leu Lys Thr Leu Lys Ile
 50 55 60
 Ser Glu Cys Phe Met Pro Asp Leu Val Ser Leu Phe Arg Thr Ala Gln
 65 70 75 80
 Thr Leu Gln Glu Phe Ala Gly Gly Ser Phe Glu Glu Gln Gly Gln Pro
 85 90 95
 Val Ala Ser Arg Asn Tyr Glu Asn Tyr Tyr Phe Pro Pro Ser Leu His
 100 105 110
 Arg Leu Ser Leu Leu Tyr Met Gly Thr Asn Asp Met Gln Ile Leu Xaa
 115 120 125
 Pro Tyr Ala Thr Ala Leu Lys Lys Leu Asp Leu Gln Phe Thr Phe Leu
 130 135 140
 Ser Thr Glu Asp His Xaa Gln Ile Val Gln Arg Cys Ser Asn Leu Glu
 145 150 155 160
 Thr Leu Glu Val Arg Asp Val Ile Gly Asp Arg Gly Leu Gln Xaa Gly
 165 170 175

Ala Gln Thr Cys Lys Lys Leu His Arg Leu Arg Val Glu Arg Gly Asp
 180 185 190

Asp Asp

<210> 3
 <211> 844
 <212> DNA
 <213> Oryza sativa

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 caggcccttc tggaacatag agtttacacc tcccagaaga ctggtcacga tctcatgctc 720
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 <211> 236
 <212> PRT
 <213> Oryza sativa

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 <222> (115)

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 Arg Gly Asp Asp Asp Pro Gly Leu Gln Glu Glu Gln Gly Gly Val Ser
 35 40 45
 Gln Val Gly Leu Thr Thr Val Ala Val Gly Cys Arg Glu^o Leu Glu Tyr
 50 55 60
 Ile Ala Ala Tyr Val Ser Asp Ile Thr Asn Gly Ala Leu Glu Ser Ile
 65 70 75 80

Gly Thr Phe Cys Lys Asn Leu Cys Asp Phe Arg Leu Val Leu Leu Asp
 85 90 95
 Arg Glu Glu Arg Ile Thr Asp Leu Pro Leu Asp Asn Gly Val Arg Ala
 100 105 110
 Leu Leu Xaa Gly Cys Thr Lys Leu Arg Arg Phe Ala Leu Tyr Leu Arg
 115 120 125
 Pro Gly Gly Leu Ser Asp Thr Gly Leu Gly Tyr Ile Gly Gln Tyr Ser
 130 135 140
 Gly Ile Ile Gln Tyr Met Leu Leu Gly Asn Val Gly Glu Thr Asp Asp
 145 150 155 160
 Gly Leu Ile Arg Phe Ala Leu Gly Cys Glu Asn Leu Arg Lys Leu Glu
 165 170 175
 Leu Arg Ser Cys Cys Phe Ser Glu Gln Ala Leu Ala Arg Ala Ile Arg
 180 185 190
 Ser Met Pro Ser Leu Arg Tyr Val Trp Val Gln Gly Tyr Lys Ala Ser
 195 200 205
 Lys Thr Gly His Asp Leu Met Leu Met Ala Arg Pro Phe Trp Asn Ile
 210 215 220
 Glu Phe Thr Pro Pro Arg Arg Leu Val Thr Ile Ser
 225 230 235

<210> 5
 <211> 482
 <212> DNA
 <213> Glycine max

<400> 5
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 ccgcaagcac gtcaccatcg cgctctgcta caccaccacc ccggctcgcc tccgccgccg 180
 cttcccgcac ctcgagtcgc tcaagctcaa gggcaagccc cgagccgcaa tgttcaactt 240
 gatacccgag gattggggcg gacacgtcac tccctgggtc aaagagattt ctcaagtact 300
 tcgattgcct caagagcctc cacttccgcc gcatgattgt caagggtatc cgatcttcag 360
 aatctcgctc gtgaccgcgg tcacgtgctt cagctctca aagcttgaca agtgctccgg 420
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 gt 482

<210> 6
 <211> 108
 <212> PRT
 <213> Glycine max

<220>
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 <222> (97)

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Asp Arg Asp Ala Val Ser Gln Val Cys Arg Arg Trp Tyr Glu Leu Asp
 20 25 30

Ser Leu Thr Arg Lys His Val Thr Ile Ala Leu Cys Tyr Thr Thr Thr
 35 40 45

Pro Ala Arg Leu Arg Arg Arg Phe Pro His Leu Glu Ser Leu Lys Leu
 50 55 60

Lys Gly Lys Pro Arg Ala Ala Met Phe Asn Leu Ile Pro Glu Asp Trp
 65 70 75 80

Gly Gly His Val Thr Pro Trp Val Lys Glu Ile Ser Gln Val Leu Arg
 85 90 95

Xaa Leu Lys Ser Leu His Phe Arg Arg Met Ile Val
 100 105

<210> 7
 <211> 794
 <212> DNA
 <213> Triticum aestivum

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 ttccgacttg tcctgcttga tagagagggt catataactg aactgcccct tgacaacggg 180
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 cccaagcttg cagaaattgg agctaaggag ttgctgcttt agtgaacgtg cattggcagt 420
 tgcagcctta cagctgaagt cactcagata tctttgggtg cagggatata aggcattctc 480
 tactggcacc gatctcatgg caatggtacg ccccttcttg aacattgagt ttattgcacc 540
 aaatcaagat gagccttgcc cagaggggtca ggacagattt ggcatactac tctctggtgg 600
 ggaaggcaga ttgtcctagt cagtattccc tccatcgtag tgggagctaa aagaccacca 660
 ccagtttact gacancatgt tgatgcagna accacatcgg anaggaattc actacagtgc 720
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 <212> PRT
 <213> Triticum aestivum

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Phe Ser Lys Asn Leu Asn Asp Phe Arg Leu Val Leu Leu Asp Arg Glu
 35 40 45
 Val His Ile Thr Glu Leu Pro Leu Asp Asn Gly Val Arg Ala Leu Leu
 50 55 60
 Arg Gly Cys Thr Lys Leu Arg Arg Phe Ala Phe Tyr Val Arg Pro Gly
 65 70 75 80
 Ala Leu Ser Asp Leu Ala Phe Leu Xaa Leu Gly Glu Phe Ser Lys Thr
 85 90 95
 Val Arg Tyr Met Leu Leu Gly Asn Ala Gly Gly Ser Asp Asp Gly Leu
 100 105 110
 Leu Ala Phe Ala Arg Xaa Cys Pro Ser Leu Gln Lys Leu Glu Leu Arg
 115 120 125
 Ser Cys Cys Phe Ser Glu Arg Ala Leu Ala Val Ala Ala Leu Gln Leu
 130 135 140
 Lys Ser Leu Arg Tyr Leu Trp Val Gln Gly Tyr Lys Ala Ser Pro Thr
 145 150 155 160
 Gly Thr Asp Leu Met Ala Met Val Arg Pro Phe Trp Asn Ile Glu Phe
 165 170 175

Ile

<210> 9
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 <212> DNA
 <213> Oryza sativa

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 cacaaggtca ctgggtcgaa gagatcgaa caagcctttt gccaattcaa gaatgggaat 300
 caaagttggt gcaatggggg ataattcaag gggtaaatt tctgggaaaa ccctccgcat 360
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 <212> PRT
 <213> *Oryza sativa*

<220>
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 <222> (90)

<400> 10
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 20 25 30
 Ala Thr Ala Thr Lys Pro Pro Met Leu Pro Lys Glu Phe Glu Asp Pro
 35 40 45
 Ala Phe Ser Thr Val Thr Ile Gln Arg Asp Leu Tyr Tyr Gly Tyr Asp
 50 55 60
 Thr Leu Met Glu Asn Val Ser Asp Pro Ser His Ile Glu Phe Ala His
 65 70 75 80
 His Lys Val Thr Gly Ser Lys Arg Ser Xaa Gln Ala Phe Cys Gln Phe
 85 90 95
 Lys Asn Gly Asn Gln Ser Trp Cys Asn Gly Gly
 100 105

<210> 11
 <211> 465
 <212> DNA
 <213> Glycine max

<220>
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 aacgaaactg aggaagagtt tagcgacgag agctcttcc ctaaattcac ttggagggat 300
 cactgggtacc ctgtctcggt aattgaagat ctgaaccctc tcttgcccac accgtttcag 360
 cttctgggtc gtgaaatcgt gctctggtac gacaagtcca tttcccaatg ggttgctttt 420
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 <212> PRT
 <213> Glycine max

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 <222> (65)

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 Leu Gly Arg Glu Ile Val Leu Trp Tyr Asp Lys Ser Ile Ser Gln Trp
 35 40 45
 Val Ala Phe Asp Asp Lys Cys Pro His Arg Leu Ala Pro Leu Ser Glu
 50 55 60

Xaa Arg
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<210> 13
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 <212> DNA
 <213> Triticum aestivum

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 ggacctcttc tatgggtatg acacgttgat ggagaacgtc tctgatccct cgcataataga 180
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 aactttcgan gccccttggc tatgcactgn aacanaatnn agattgacac caaattaacc 360
 gattntggga gatcacaaat gggtcntatg gatttgctcc ttcnanattc caaaggccca 420
 aggaaaatcg ttctattgtc cgtantgctc naaacttttc antttaaatn ccacnaagga 480
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<210> 14
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 <213> Triticum aestivum

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 <222> (69)

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 <222> (103)

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 20 25 30
 Phe Ser Thr Val Thr Ile Gln Arg Asp Leu Phe Tyr Gly Tyr Asp Thr
 35 40 45
 Leu Met Glu Asn Val Ser Asp Pro Ser His Ile Glu Phe Ala His His
 50 55 60
 Lys Val Thr Gly Xaa Arg Asp Xaa Ala Lys Pro Leu Pro Phe Lys Met
 65 70 75 80
 Glu Ser Xaa Gly Xaa Trp Gly Tyr Ser Xaa Ala Asn Thr Gly Asn Pro
 85 90 95
 Arg Xaa Thr Ala Thr Phe Xaa Ala Pro
 100 105

<210> 15
 <211> 562
 <212> DNA
 <213> Zea mays

<220>
 <221> unsure
 <222> (136)

<220>
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 <222> (562)

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gatctggagc ttcttgcaag gaactgtaaa tcattgattt ctctgaagat gagtgactgc 300
gatctttcgg atttgatggt tttctccaaa cctccaaggc actgcaagaa ttcgctggag 360
gcgctttttt cgaaatcgga gagtacacca agtacgaaaa ggtcaagctc ccacctaagc 420
tatgcttctt ggggggtctt accttcacatg gtaaaaaacga gatgcccggtt aatctttccg 480
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<210> 16
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<212> PRT
<213> Zea mays

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<222> (46)

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      20           25           30

Ser Cys Arg Ser Leu Arg Thr Leu Phe Leu Glu Glu Cys Xaa Ile Ala
      35           40           45

Asp Glu Gly Ser Glu Trp Leu His Glu Leu Ala Val Asn Asn Ser Val
 50           55           60

Leu Val Thr Leu Asn Phe Tyr Met Thr Glu Leu Lys Val Glu Pro Ala
 65           70           75           80

Asp Leu Glu Leu Leu Ala Arg Asn Cys Lys Ser Leu Ile Ser Leu Lys
      85           90           95

Met Ser Asp Cys Asp Leu Ser Asp Leu Met Val Phe Ser Lys Xaa Ser
    100           105           110

Lys Ala Leu Gln Glu Phe Ala Gly Gly Ala Phe Phe Glu Ile Gly Glu
    115           120           125

Tyr Thr Lys Tyr Glu Lys Val Lys Leu Pro Pro Lys Leu Cys Phe Leu
    130           135           140

Gly Gly Leu Thr Phe Met Gly Lys Asn Glu Met Pro Val Asn Leu Ser
    145           150           155           160

Val Phe Cys Val Arg Leu Arg Asn Trp Thr Cys Ser Thr Leu Ser Leu
    165           170           175

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Thr Thr Glu Asp His Cys Gln Leu Asn Arg
180 185

<210> 17
<211> 1728
<212> DNA
<213> Zea mays

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tgaattttctt tctaacagat ctcaggcat cccagagta tcttaccctc cttgtgcgca 180
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aacctgtggc aagtagaaat tatgagaact actattttcc tccttactg caccgcttga 360
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agaagttaga ccttcagttt acattccttt ccacagagga tcattgtcag atagttcaac 480
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aaggaggtct tgaggatgaa caaggtagga ttccacaggt ggggttgatg gctatagccc 660
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tagaggcagt tggtagatgc agcaaaaatc ttaatgactt ccgccttgct ctccttgata 780
gagaagcaca tataaccgaa ttgccactgg acaatggggt tcgtgctttg cttagagggtt 840
gcaccaaact acggagggtt gcattttatg tgagacctgg ggccctatct gatgttggtc 900
ttggctatgt tggagaattt agtaagagta ttcggttatat gttgcttggt aatgttggtg 960
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agcataagag acagattctg gcatactact cccttgctgg caggaggaca gattgtcctc 1260
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aatctcatgg tactaagttc cattgggtccc actatctgtg aagtaaatgg tccctgttct 1380
tccaattgat gaggacatgc agacgttcca gtgcaaagaa ccccaaaggt aagctttaag 1440
caggacggcc agctctgaac tgaggctagc tgagaacaat catgaatacc tgaaggcagc 1500
acttatgtca gcttggccta gctgtccagt atgggcatgt aagctttacc atcttttgta 1560
gttttgagaa aacaattttg caataactac ccttggtttg tgtatattat cgattttcgt 1620
tcatatgctg ttgtattgtt gtattgaaca attatgtcaa ttaattagtc tacactctac 1680
agtctaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaag 1728

<210> 18
<211> 429
<212> PRT
<213> Zea mays

<400> 18
Thr Arg Pro Arg Thr Arg Gly Leu Glu Thr Leu Phe Leu Glu Glu Ser
1 5 10 15
Thr Ile Asp Glu Lys Glu Asn Asp Glu Trp Ile Arg Glu Leu Ala Thr
20 25 30
Ser Asn Ser Val Leu Glu Thr Leu Asn Phe Phe Leu Thr Asp Leu Arg
35 40 45
Ala Ser Pro Glu Tyr Leu Thr Leu Leu Val Arg Asn Cys Gln Arg Leu
50 55 60
Lys Thr Leu Lys Ile Ser Glu Cys Phe Met Pro Asp Leu Val Ser Leu
65 70 75 80

Phe Arg Thr Ala Gln Thr Leu Gln Glu Phe Ala Gly Gly Ser Phe Glu
 85 90 95

Glu Gln Gly Gln Pro Val Ala Ser Arg Asn Tyr Glu Asn Tyr Tyr Phe
 100 105 110

Pro Pro Ser Leu His Arg Leu Ser Leu Leu Tyr Met Gly Thr Asn Asp
 115 120 125

Met Gln Ile Leu Phe Pro Tyr Ala Thr Ala Leu Lys Lys Leu Asp Leu
 130 135 140

Gln Phe Thr Phe Leu Ser Thr Glu Asp His Cys Gln Ile Val Gln Arg
 145 150 155 160

Cys Ser Asn Leu Glu Thr Leu Glu Val Arg Asp Val Ile Gly Asp Arg
 165 170 175

Gly Leu Gln Val Val Ala Gln Thr Cys Lys Lys Leu His Arg Leu Arg
 180 185 190

Val Glu Arg Gly Asp Asp Asp Gln Gly Gly Leu Glu Asp Glu Gln Gly
 195 200 205

Arg Ile Ser Gln Val Gly Leu Met Ala Ile Ala Gln Gly Cys Pro Glu
 210 215 220

Leu Thr Tyr Trp Ala Ile His Val Ser Asp Ile Thr Asn Ala Ala Leu
 225 230 235 240

Glu Ala Val Gly Thr Cys Ser Lys Asn Leu Asn Asp Phe Arg Leu Val
 245 250 255

Leu Leu Asp Arg Glu Ala His Ile Thr Glu Leu Pro Leu Asp Asn Gly
 260 265 270

Val Arg Ala Leu Leu Arg Gly Cys Thr Lys Leu Arg Arg Phe Ala Phe
 275 280 285

Tyr Val Arg Pro Gly Ala Leu Ser Asp Val Gly Leu Gly Tyr Val Gly
 290 295 300

Glu Phe Ser Lys Ser Ile Arg Tyr Met Leu Leu Gly Asn Val Gly Glu
 305 310 315 320

Ser Asp Asn Gly Ile Ile Gln Leu Ser Lys Gly Cys Pro Ser Leu Gln
 325 330 335

Lys Leu Glu Val Arg Gly Cys Leu Phe Ser Glu His Ala Leu Ala Leu
 340 345 350

Ala Ala Leu Gln Leu Lys Ser Leu Arg Tyr Leu Trp Val Gln Gly Phe
 355 360 365

Arg Ser Ser Pro Thr Gly Thr Asp Ile Met Ala Met Val Arg Pro Phe
 370 375 380

Trp Asn Ile Glu Tyr Ile Val Pro Asp Gln Asp Glu Pro Cys Pro Glu
 385 390 395 400

His Lys Arg Gln Ile Leu Ala Tyr Tyr Ser Leu Ala Gly Arg Arg Thr
 405 410 415

Asp Cys Pro Pro Ser Val Thr Leu Leu Tyr Pro Ala Phe
 420 425

<210> 19
 <211> 2240
 <212> DNA
 <213> *Oryza sativa*

<400> 19
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 cccgcctggt tgggtggtggt ggggtgaggg gggagggatg ggaggggagg caccggaggc 240
 gggcggttg gaccgcgcga tgagcttcgg cggcgcgggc agcatcccg aggaggcgct 300
 gcacctggtg ctggggtacg tggacgaccc gcgggacagg gaggcggtgt cgctcgtgtg 360
 ccgcgcgtgg caccgcctcg acgcgctcac gcggaagcac gtcaccgtgc cttcttgcta 420
 cgccgcgtcg cccgcgcacc tgctcgcgcg gttcccgcg ctggagtcgc tcgcggtcaa 480
 ggggaagccg cgcgcgcgca tgtacgggct catcccgagg gactggggcg cctacgcgcg 540
 cccctgggtc gccgagctcg ccgcgcgcgt cgagtgcctc aaggcgctcc acctgcgccg 600
 catggtcgct accgacgacg acctcgccgc gctcgtccgc gcccgcgccg acctgctgca 660
 ggagctcaag ctgcacaagt gctccggtt ctccaccgac gctctccgac tcgctgcgcc 720
 ctcttcgaga tcaactgagaa cattatttct ggagggaatgc tcaattgctg ataattgtac 780
 tgaatggctc cagcaccctg ctgtcaacaa tctgttctg gagacattga acttccacat 840
 gaccgaactc acagtgggtg cagctgacct ggagcttctc gcaaagaagt gcaagtcact 900
 aatttcattg aagatcagtg actgtgactt ttcagattta attggatttt tccggatggc 960
 tgcattcattg caagagtttg cgggaggggc attcattgag caaggggagc tactaagta 1020
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 cgagatgccc attatcttcc cttctctcgc ctactcaag aagctggact tgcagtacac 1140
 ttttctcacc actgaagatc actgccaaact cattgcaaaa tgtcccaact tactagttct 1200
 tgcggtgagg aatgtgattg gagatagagg attaggggtt gttgcagaca catgcaagaa 1260
 gctacaaaga ctacagattg agcgaggaga tgatgatcca ggtttgcaag aagaacaagg 1320
 aggagtctct caagtcgggt tgacaactgt agccgtagga tgccgtgaac tgggaatacat 1380
 agctgcctat gtgtctgata tcacaaatgg ggccctggag tctattggga ctttctgcaa 1440
 aaatctttgc gacttccgtc ttgtcctact cgatagagaa gagaggataa cagatttgcc 1500
 cttagacaat ggtgtccgtg cactgctgag gggctgcacg aaacttcgga ggtttgctct 1560
 atacttgaga ccagggggac tttcagatac aggccttggc tatattggac agtacagtgg 1620
 aattatccaa tacatgcttc tgggtaattg tggggaaaca gatgatggtc tgatccggtt 1680
 tgcattgggg tgtgagaacc tgcggaagct tgagctaagg agttgttgct tcagttagca 1740
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 caaggcttct aagactggct acgatctcat gctcatggcc aggccttctt ggaacataga 1860
 gtttacacct cccagttctg agaatgcaaa tcgaatgaga gaagatggtg aaccttgtgt 1920
 agatagtcaa gctcagatac ttgcatacta ctcccttgcc ggggaagaggt cggactgccc 1980
 acgatctgtg gttcctttgt atcctgcgtg actgtaaata ccgatattgt atctctctgc 2040
 ttcgttcttg cctcttgctt tttttgggtg atatgttgat atgtgggtat tgtatgggtc 2100
 tagaactcta gatggctagc tgctatgtac sgtaataagc tactggtagc tgagatgtac 2160
 tggaaataagc acttctattt cccactctaa aaaaaaaaaa aaaaactcgg gcacgagggg 2220
 gggcccggtg cccaattcgc 2240

<210> 20
 <211> 597
 <212> PRT
 <213> *Oryza sativa*

<400> 20
 Met Gly Gly Glu Ala Pro Glu Ala Arg Arg Leu Asp Arg Ala Met Ser
 1 5 10 15

Phe Gly Gly Ala Gly Ser Ile Pro Glu Glu Ala Leu His Leu Val Leu
 20 25 30
 Gly Tyr Val Asp Asp Pro Arg Asp Arg Glu Ala Val Ser Leu Val Cys
 35 40 45
 Arg Arg Trp His Arg Ile Asp Ala Leu Thr Arg Lys His Val Thr Val
 50 55 60
 Pro Phe Cys Tyr Ala Ala Ser Pro Ala His Leu Leu Ala Arg Phe Pro
 65 70 75 80
 Arg Leu Glu Ser Leu Ala Val Lys Gly Lys Pro Arg Ala Ala Met Tyr
 85 90 95
 Gly Leu Ile Pro Glu Asp Trp Gly Ala Tyr Ala Arg Pro Trp Val Ala
 100 105 110
 Glu Leu Ala Ala Pro Leu Glu Cys Leu Lys Ala Leu His Leu Arg Arg
 115 120 125
 Met Val Val Thr Asp Asp Asp Leu Ala Ala Leu Val Arg Ala Arg Gly
 130 135 140
 His Met Leu Gln Glu Leu Lys Leu Asp Lys Cys Ser Gly Phe Ser Thr
 145 150 155 160
 Asp Ala Leu Arg Leu Val Ala Arg Ser Cys Arg Ser Leu Arg Thr Leu
 165 170 175
 Phe Leu Glu Glu Cys Ser Ile Ala Asp Asn Gly Thr Glu Trp Leu His
 180 185 190
 Asp Leu Ala Val Asn Asn Pro Val Leu Glu Thr Leu Asn Phe His Met
 195 200 205
 Thr Glu Leu Thr Val Val Pro Ala Asp Leu Glu Leu Leu Ala Lys Lys
 210 215 220
 Cys Lys Ser Leu Ile Ser Leu Lys Ile Ser Asp Cys Asp Phe Ser Asp
 225 230 235 240
 Leu Ile Gly Phe Phe Arg Met Ala Ala Ser Leu Gln Glu Phe Ala Gly
 245 250 255
 Gly Ala Phe Ile Glu Gln Gly Glu Leu Thr Lys Tyr Gly Asn Val Lys
 260 265 270
 Phe Pro Ser Arg Leu Cys Ser Leu Gly Leu Thr Tyr Met Gly Thr Asn
 275 280 285
 Glu Met Pro Ile Ile Phe Pro Phe Ser Ala Leu Leu Lys Lys Leu Asp
 290 295 300
 Leu Gln Tyr Thr Phe Leu Thr Thr Glu Asp His Cys Gln Leu Ile Ala
 305 310 315 320
 Lys Cys Pro Asn Leu Leu Val Leu Ala Val Arg Asn Val Ile Gly Asp
 325 330 335

Arg Gly Leu Gly Val Val Ala Asp Thr Cys Lys Lys Leu Gln Arg Leu
 340 345 350
 Arg Val Glu Arg Gly Asp Asp Asp Pro Gly Leu Gln Glu Glu Gln Gly
 355 360 365
 Gly Val Ser Gln Val Gly Leu Thr Thr Val Ala Val Gly Cys Arg Glu
 370 375 380
 Leu Glu Tyr Ile Ala Ala Tyr Val Ser Asp Ile Thr Asn Gly Ala Leu
 385 390 395 400
 Glu Ser Ile Gly Thr Phe Cys Lys Asn Leu Cys Asp Phe Arg Leu Val
 405 410 415
 Leu Leu Asp Arg Glu Glu Arg Ile Thr Asp Leu Pro Leu Asp Asn Gly
 420 425 430
 Val Arg Ala Leu Leu Arg Gly Cys Thr Lys Leu Arg Arg Phe Ala Leu
 435 440 445
 Tyr Leu Arg Pro Gly Gly Leu Ser Asp Thr Gly Leu Gly Tyr Ile Gly
 450 455 460
 Gln Tyr Ser Gly Ile Ile Gln Tyr Met Leu Leu Gly Asn Val Gly Glu
 465 470 475 480
 Thr Asp Asp Gly Leu Ile Arg Phe Ala Leu Gly Cys Glu Asn Leu Arg
 485 490 495
 Lys Leu Glu Leu Arg Ser Cys Cys Phe Ser Glu Gln Ala Leu Ala Arg
 500 505 510
 Ala Ile Arg Ser Met Pro Ser Leu Arg Tyr Val Trp Val Gln Gly Tyr
 515 520 525
 Lys Ala Ser Lys Thr Gly His Asp Leu Met Leu Met Ala Arg Pro Phe
 530 535 540
 Trp Asn Ile Glu Phe Thr Pro Pro Ser Ser Glu Asn Ala Asn Arg Met
 545 550 555 560
 Arg Glu Asp Gly Glu Pro Cys Val Asp Ser Gln Ala Gln Ile Leu Ala
 565 570 575
 Tyr Tyr Ser Leu Ala Gly Lys Arg Ser Asp Cys Pro Arg Ser Val Val
 580 585 590
 Pro Leu Tyr Pro Ala
 595

<210> 21
 <211> 2288
 <212> DNA
 <213> Glycine max

<400> 21
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 ggggtgtatgt agctgttcct aggatgaata ttgtgataac agaacggcgt ttgaagcagt 120
 gacgtgttac atcagtacat cacatcacat cacgtaaata taggtaataa gctcggaaaa 180

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agttttgtcg tttcacaccc atctgtttgg ccctaccatt tctcactca tcatcccat 240
aaccatttcc ctttttgcca cttgaaccaa aacctctgca ctttttcttt tcaactctcag 300
tctccgatcc aatatgacgg aggaacggaa cgtgcggaag acacgtgtgg tcgacgtggt 360
cctcgactgc gtcattccctt acatcgacga cccaaggac cgcgacgccc tttcccagg 420
gtgtcgacgc tggtagacgc tcgactcgct caccgcgaag cacgtcacca tcgcgctctg 480
ctacaccacc accccggctc gcctccgccc cgccttcccg cactcgagt cgctcaagct 540
caagggcaag ccccgagccc caatgttcaa cttgataccc gaggattggg gcggacacgt 600
cactccctgg gtcaaagaga tttctcagta cttcgattgc ctcaagagcc tccatttccg 660
ccgcatgatt gtcaaggatt ccgatcttca gaatctcgct cgtgaccgcg gtcacgtgct 720
tcacgctctc aagcttgaca agtgctccgg tttcaccacc gatggctctt tccatatcgg 780
tcgcttttgc aagagtttaa gaggcttggg tttggaggaa agctcaattc ttgagaagga 840
cggagaatgg ctacacgagc ttgctttgaa taatacagtt cttgagactc tcaattttta 900
cttgacagac attgctgttg tgaagattga ggaccttgaa ctttttagcta aaaattgccc 960
caacttagtg tctgtgaaac ttactgactg tgaaatactg gatcttgtga acttctttta 1020
gcatgctctc gcgctggaag agttttgtgg aggcacctac aacgaggaac cagaaagata 1080
ctctgtcata tcattaccag caaagttatg tcgattgggt ttaacatata ttggaaagaa 1140
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aatgctagac acggaggatc attgtatggt aatccaaagg tgtccaaatc tggagtcct 1260
tgagacaagg aatgtaattg gagatagagg gttagagggt cttggctcgtt gttgtaagag 1320
gctaaaaagg cttaggattg aaaggggcga tgatgatcaa ggaatggagg atgaagaagg 1380
tactgtgtcc catagagggc taatagcctt gtcacagggc tgttcagagc ttgaatacat 1440
ggctgtttat gtgtctgata ttacaaatgc atctctggaa catattggaa ctcaattgaa 1500
gaacctctgt gattttcgcc ttgtgttgct tgaccatgaa gagaagataa ctgatttgc 1560
acttgacaat ggggtgaggg ctctactgag ggcctgtgac aagctgagga gatttgctct 1620
atatctcagg cgtggcgggt tgactgatgt aggccttgggt tacattggac aatacagtc 1680
aaatgtgaga tggatgctgc ttggttatgt gggggagtct gatgcagggc ttttggagtt 1740
cgctaagggg tgcctagtc ttcagaaact tgaaatgaga ggggtgtttat ttttcagtga 1800
acgtgcactt gctgtggctg caacacaatt gacttctctt aggtacttgt ggggtgcaagg 1860
ttatggtgta tctccatctg gacgtgatct tttggtaatg gctcgaccct tttggaacat 1920
tgagttgatt ctttctagaa aggtggctac gaataccaat ccagatgaga ctgtagttgt 1980
tgagcatcct gctcatattc ttgcatatta ttctcttgca gggcagagat cagattttcc 2040
agatactgtt gtgcctttgg acactgccac atgcgttgat acctagaggc cagagctgtg 2100
tatatatacc agttttcttt tgttttctt cttccctttc atatgctgtt tctatgttcc 2160
tgctctatth gtagttcatt ttagacaatt agtcttgtaa taagcctgtg ttttcatttg 2220
aaattctgaa acgcttcccc taacgctatt ggctccctta aaaactgaac atttctcaatt 2280
ttgtgaat

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<210> 22
 <211> 606
 <212> PRT
 <213> Glycine max

<400> 22
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 1 5 10 15
 Met Thr Glu Glu Arg Asn Val Arg Lys Thr Arg Val Val Asp Val Val
 20 25 30
 Leu Asp Cys Val Ile Pro Tyr Ile Asp Asp Pro Lys Asp Arg Asp Ala
 35 40 45
 Val Ser Gln Val Cys Arg Arg Trp Tyr Glu Leu Asp Ser Leu Thr Arg
 50 55 60
 Lys His Val Thr Ile Ala Leu Cys Tyr Thr Thr Thr Pro Ala Arg Leu
 65 70 75 80
 Arg Arg Arg Phe Pro His Leu Glu Ser Leu Lys Leu Lys Gly Lys Pro
 85 90 95

Arg Ala Ala Met Phe Asn Leu Ile Pro Glu Asp Trp Gly Gly His Val
 100 105 110
 Thr Pro Trp Val Lys Glu Ile Ser Gln Tyr Phe Asp Cys Leu Lys Ser
 115 120 125
 Leu His Phe Arg Arg Met Ile Val Lys Asp Ser Asp Leu Gln Asn Leu
 130 135 140
 Ala Arg Asp Arg Gly His Val Leu His Ala Leu Lys Leu Asp Lys Cys
 145 150 155 160
 Ser Gly Phe Thr Thr Asp Gly Leu Phe His Ile Gly Arg Phe Cys Lys
 165 170 175
 Ser Leu Arg Val Leu Phe Leu Glu Glu Ser Ser Ile Leu Glu Lys Asp
 180 185 190
 Gly Glu Trp Leu His Glu Leu Ala Leu Asn Asn Thr Val Leu Glu Thr
 195 200 205
 Leu Asn Phe Tyr Leu Thr Asp Ile Ala Val Val Lys Ile Glu Asp Leu
 210 215 220
 Glu Leu Leu Ala Lys Asn Cys Pro Asn Leu Val Ser Val Lys Leu Thr
 225 230 235 240
 Asp Cys Glu Ile Leu Asp Leu Val Asn Phe Phe Lys His Ala Ser Ala
 245 250 255
 Leu Glu Glu Phe Cys Gly Gly Thr Tyr Asn Glu Glu Pro Glu Arg Tyr
 260 265 270
 Ser Ala Ile Ser Leu Pro Ala Lys Leu Cys Arg Leu Gly Leu Thr Tyr
 275 280 285
 Ile Gly Lys Asn Glu Leu Pro Ile Val Phe Met Phe Ala Ala Val Leu
 290 295 300
 Lys Lys Leu Asp Leu Leu Tyr Ala Met Leu Asp Thr Glu Asp His Cys
 305 310 315 320
 Met Leu Ile Gln Arg Cys Pro Asn Leu Glu Val Leu Glu Thr Arg Asn
 325 330 335
 Val Ile Gly Asp Arg Gly Leu Glu Val Leu Gly Arg Cys Cys Lys Arg
 340 345 350
 Leu Lys Arg Leu Arg Ile Glu Arg Gly Asp Asp Asp Gln Gly Met Glu
 355 360 365
 Asp Glu Glu Gly Thr Val Ser His Arg Gly Leu Ile Ala Leu Ser Gln
 370 375 380
 Gly Cys Ser Glu Leu Glu Tyr Met Ala Val Tyr Val Ser Asp Ile Thr
 385 390 395 400
 Asn Ala Ser Leu Glu His Ile Gly Thr His Leu Lys Asn Leu Cys Asp
 405 410 415

Phe Arg Leu Val Leu Leu Asp His Glu Glu Lys Ile Thr Asp Leu Pro
 420 425 430
 Leu Asp Asn Gly Val Arg Ala Leu Leu Arg Gly Cys Asp Lys Leu Arg
 435 440 445
 Arg Phe Ala Leu Tyr Leu Arg Arg Gly Gly Leu Thr Asp Val Gly Leu
 450 455 460
 Gly Tyr Ile Gly Gln Tyr Ser Pro Asn Val Arg Trp Met Leu Leu Gly
 465 470 475 480
 Tyr Val Gly Glu Ser Asp Ala Gly Leu Leu Glu Phe Ala Lys Gly Cys
 485 490 495
 Pro Ser Leu Gln Lys Leu Glu Met Arg Gly Cys Leu Phe Phe Ser Glu
 500 505 510
 Arg Ala Leu Ala Val Ala Ala Thr Gln Leu Thr Ser Leu Arg Tyr Leu
 515 520 525
 Trp Val Gln Gly Tyr Gly Val Ser Pro Ser Gly Arg Asp Leu Leu Val
 530 535 540
 Met Ala Arg Pro Phe Trp Asn Ile Glu Leu Ile Pro Ser Arg Lys Val
 545 550 555 560
 Ala Thr Asn Thr Asn Pro Asp Glu Thr Val Val Val Glu His Pro Ala
 565 570 575
 His Ile Leu Ala Tyr Tyr Ser Leu Ala Gly Gln Arg Ser Asp Phe Pro
 580 585 590
 Asp Thr Val Val Pro Leu Asp Thr Ala Thr Cys Val Asp Thr
 595 600 605

<210> 23
 <211> 577
 <212> DNA
 <213> Triticum aestivum

<220>
 <221> unsure
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<220>
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<220>
 <221> unsure
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<400> 23
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 agcctgccga tctggagctt cttgcaagga actgtaaatc attgatttct ctgaagatga 180
 gtgactgcga tctttcggat ttgattgggt ttctccaaac ctccaaggca ctgcaagaat 240
 ccgctgggag gcgctttttt cgaagtcgga gagtacacca agtacgaaaa ggcaantccc 300
 acctagctat gctcctgggg gggcctacct tcatgggtaa aaacgaatcc cgttactttc 360
 cgtatccgcg tcgcttaaaa actggacctg catacacttc ctcacaacng aaatnacgtc 420
 acttaacgct aaagcccaac ctacgggtct cnaggggggc cggtagcaat cgccctatat 480
 gatcctatac cgcgncacgg gcgtccttta cactctgacg ggaaactggg taccactaac 540
 cctganaanc ccttccactg gtatacaaaag gccgacg 577

<210> 24
 <211> 159
 <212> PRT
 <213> Triticum aestivum

<220>
 <221> UNSURE
 <222> (98)

<220>
 <221> UNSURE
 <222> (136)

<220>
 <221> UNSURE
 <222> (138)

<400> 24
 Thr Leu Phe Leu Glu Glu Cys Ile Ile Ala Asp Glu Gly Ser Glu Trp
 1 5 10 15
 Leu His Glu Leu Ala Val Asn Asn Ser Val Leu Val Thr Leu Asn Phe
 20 25 30
 Tyr Met Thr Glu Leu Lys Val Glu Pro Ala Asp Leu Glu Leu Leu Ala
 35 40 45
 Arg Asn Cys Lys Ser Leu Ile Ser Leu Lys Met Ser Asp Cys Asp Leu
 50 55 60
 Ser Asp Leu Ile Gly Phe Leu Gln Thr Ser Lys Ala Leu Gln Glu Ser
 65 70 75 80
 Ala Gly Arg Arg Phe Phe Arg Ser Arg Arg Val His Gln Val Arg Lys
 85 90 95

Gly Xaa Ser His Leu Ala Met Leu Leu Gly Gly Pro Thr Phe Met Gly
 100 105 110

Lys Asn Glu Ser Arg Tyr Phe Pro Tyr Pro Arg Arg Leu Lys Thr Gly
 115 120 125

Pro Ala Tyr Thr Ser Ser Gln Xaa Lys Xaa Arg His Leu Thr Leu Lys
 130 135 140

Pro Asn Leu Arg Val Ser Arg Gly Ala Gly Thr Asn Arg Pro Ile
 145 150 155

<210> 25
 <211> 486
 <212> DNA
 <213> Triticum aestivum

<220>
 <221> unsure
 <222> (197)

<220>
 <221> unsure
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<220>
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 <222> (470)

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<400> 25
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gccggcgcg agccttaggc ggggatgggc ggggagggcc cgagccgcg gcggctgagc 120
cgcgcgctca gcctggacgg cggcgggcgtc ccggaggagg cgctgcacct ggtgctcggc 180
tacgtggacg acccgcnca cgcgaggcg gcctcgctgg cgtgccgcg ctggcaccac 240
atcgacgcgc tcacgcggaa gcacgtcacc gtgcncttct gctacgcng tgtccccngc 300
gcgcctgctc gcgcgcttcc cgcgcctcga gtcnctcggg gtcaanggca agcccgcgcc 360
gccatgtacg gctcatcccc gacgactggg gcgcctacnc ccgggccctg cgtccctgag 420
ctcgccgccc cgctcgattg nctcaaggcg gctcaacctt gcncncaan gtcgtcaccg 480
acgaca 486

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<210> 26
<211> 134
<212> PRT
<213> Triticum aestivum

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<220>
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<220>
<221> UNSURE
<222> (64)

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<220>
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<222> (69)

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<220>
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<220>
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<222> (84)

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<220>
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<220>
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<220>
<221> UNSURE
<222> (127)..(128)..(129)

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<400> 26
Met Gly Gly Glu Ala Pro Glu Pro Arg Arg Leu Ser Arg Ala Leu Ser
  1              5              10              15

Leu Asp Gly Gly Gly Val Pro Glu Glu Ala Leu His Leu Val Leu Gly
      20              25              30

Tyr Val Asp Asp Pro Xaa Asp Arg Glu Ala Ala Ser Leu Ala Cys Arg
  35              40              45

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Arg Trp His His Ile Asp Ala Leu Thr Arg Lys His Val Thr Val Xaa
 50 55 60

Phe Cys Tyr Ala Xaa Val Pro Xaa Ala Pro Ala Arg Ala Leu Pro Ala
 65 70 75 80

Pro Arg Val Xaa Arg Gly Gln Xaa Gln Ala Arg Ala Ala Met Tyr Gly
 85 90 95

Ser Ser Pro Thr Thr Gly Ala Pro Thr Pro Gly Pro Cys Val Pro Glu
 100 105 110

Leu Ala Ala Pro Leu Asp Xaa Leu Lys Ala Ala Gln Pro Cys Xaa Xaa
 115 120 125

Xaa Ser Ser Pro Thr Thr
 130

<210> 27
 <211> 1074
 <212> DNA
 <213> Triticum aestivum

<400> 27
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 acatgtgtct gacattacaa atgcagctct tgaggctatt ggcgcattca gcaaaaacct 120
 gaacgatttc cgacttgtcc tgcttgatag agagggtgcat ataaactgaac tgccccttga 180
 caacgggggtt cgggctttgc tgagagggtg caccaaaactc cggaggtttg cattttatgt 240
 gagacctgga gctctatcag atattggcct ttcttatgtt ggcgaattta gcaagaccgt 300
 ccgctacatg ttgcttggga atgccggggg gtctgatgat ggactgctgg catttgcacg 360
 aggatgcccc agcttgcaga aattggagct aaggagttgc tgctttagtg aacgtgcatt 420
 ggcagttgca gccttacagc tgaagtcact cagatatctt tgggtgcagg gatacaaggc 480
 atctcctact ggcaccgatc tcatggcaat ggtacgcccc ttctggaaca ttgagtttat 540
 tgcaccaaatt caagatgagc cttgcccaga gggtcaggca cagattcttg catactactc 600
 tctggctggg gcaaggacag attgtcctca gtcagtaatt cccctccatc cgtcagtggg 660
 aagctaaaaa gaccaccacc agtttgactg tacatacatg tttgatgcca gcaaaaacca 720
 caatgcggtg tagggacatt ccaccttaca gtgccaatta cgggactgaa agctcaagta 780
 aaagcgaccc actctgaact gccttggtat cttaggggca acatttttgg gtaagctggt 840
 catctggcca acatggatat ctttgtgtac tacaccattt tgacatggct cggacacgca 900
 tttttgtaat aatgtgcccc gttgtaatg catttttctg ttcttgagct ttgcccactg 960
 tattgttggt ctacaaacag tattggatta gttgtgtgac catctgtgaa acaatctgca 1020
 caatgttatg tttaacccat gaatatcttg aaaaaaaaaa aaaaaaaaaa aaaa 1074

<210> 28
 <211> 221
 <212> PRT
 <213> Triticum aestivum

<400> 28
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Tyr Trp Ala Val His Val Ser Asp Ile Thr Asn Ala Ala Leu Glu Ala
 20 25 30

Ile Gly Ala Phe Ser Lys Asn Leu Asn Asp Phe Arg Leu Val Leu Leu
 35 40 45

Asp Arg Glu Val His Ile Thr Glu Leu Pro Leu Asp Asn Gly Val Arg
 50 55 60

Ala Leu Leu Arg Gly Cys Thr Lys Leu Arg Arg Phe Ala Phe Tyr Val
65 70 75 80

Arg Pro Gly Ala Leu Ser Asp Ile Gly Leu Ser Tyr Val Gly Glu Phe
85 90 95

Ser Lys Thr Val Arg Tyr Met Leu Leu Gly Asn Ala Gly Gly Ser Asp
100 105 110

Asp Gly Leu Leu Ala Phe Ala Arg Gly Cys Pro Ser Leu Gln Lys Leu
115 120 125

Glu Leu Arg Ser Cys Cys Phe Ser Glu Arg Ala Leu Ala Val Ala Ala
130 135 140

Leu Gln Leu Lys Ser Leu Arg Tyr Leu Trp Val Gln Gly Tyr Lys Ala
145 150 155 160

Ser Pro Thr Gly Thr Asp Leu Met Ala Met Val Arg Pro Phe Trp Asn
165 170 175

Ile Glu Phe Ile Ala Pro Asn Gln Asp Glu Pro Cys Pro Glu Gly Gln
180 185 190

Ala Gln Ile Leu Ala Tyr Tyr Ser Leu Ala Gly Ala Arg Thr Asp Cys
195 200 205

Pro Gln Ser Val Ile Pro Leu His Pro Ser Val Gly Ser
210 215 220

<210> 29
<211> 1812
<212> DNA
<213> *Oryza sativa*

<220>
<221> unsure
<222> (1108)

<400> 29
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ccggctgctg gttttcgtgc cagaaacagg cgattttacc agtgccagtt agctctcgcc 180
ttctctctcc tccatcgtgc tactactctg ttcttctgga agaacactgg tctcctcgcc 240
tacctcagtc accactcacc acaccagggt cgagctataa aaaccggcac gccaaaaatc 300
ttcaaaaacca cacagaaacc tcagatctcc gaggttcca agcgagtcga cgaaaatgcc 360
cgtgatggct ccgaccgcat ctcttctctc ctccccgagg ccgctgccgg cgagccgccg 420
ggctcccctcg ctcccggcgc tctcggttcc cggtcgctcg cgcctccgcc gcgcccgcgc 480
cgacacacgg ctccgcgtgg cggcgccgcc gtcggtcccc ggggaggcgg accaggcgcc 540
cggggagacc gagccgagca cgtcgtcggc cgacgagaag ttctgtgtga gggaccactg 600
gtaccccgtg tccctcgtcg aggacctcga cccagcgtg cccaccccggt tccagtcctt 660
caaccgcgac ctcgatcatc ggaaggaccc aaatccggc gagggtggcg ccctcgacga 720
ccgttgcccc catcgctcgc cgcccccttc ggagggggcg atcgatgaga cggggtgctt 780
gcagtgtcga taccacgggt ggtcattcga tggctccggc gcgtgcaccc ggatcccga 840
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gttccccacc ctcgctcgcg aagggtgctt ctctgtgtgg cccgacgaga atgggtggga 960
gaaggccacg gctaccaagc ctccgatgtt accgaaggag tttgaggatc ctgcgttctc 1020
cacggtgacc atccagaggg atctgtacta tggctatgat acattgatgg agaacgtctc 1080
tgatccgtcg catatagaat ttgctcanca caaggtcact ggtcgaagag atcgagccag 1140

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gcctttgcc a ttcaagatgg aatcaagtgg tgcattggga tattcagggt caaattctgg 1200
aaaccctcgc atcagtgcaa cttttgtggc cccttgctat gcactgaaca aaattgagat 1260
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cattccaatg gccccaggga agactcgttc tatagtttgt agtgctcgga actttttcca 1380
gttttagcatg ccaggaaaag catggtggca gcttgtccct cgatggtatg agcattggac 1440
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aaagcgtgag atgctagata gatatgagca gcacacactg aaatgctcat cttgcaaagg 1740
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attattgctt gc 1812

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<210> 30
 <211> 485
 <212> PRT
 <213> Oryza sativa

<220>
 <221> UNSURE
 <222> (251)

<400> 30
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 Leu Pro Ala Ser Arg Arg Val Pro Ser Leu Pro Ala Leu Ser Ala Ser
 20 25 30
 Gly Arg Leu Arg Leu Arg Arg Ala Arg Ala Asp Thr Arg Leu Arg Val
 35 40 45
 Ala Ala Pro Pro Ser Val Pro Gly Glu Ala Asp Gln Ala Pro Gly Glu
 50 55 60
 Thr Glu Pro Ser Thr Ser Ser Ala Asp Glu Lys Phe Val Trp Arg Asp
 65 70 75 80
 His Trp Tyr Pro Val Ser Leu Val Glu Asp Leu Asp Pro Ser Val Pro
 85 90 95
 Thr Pro Phe Gln Leu Leu Asn Arg Asp Leu Val Ile Trp Lys Asp Pro
 100 105 110
 Lys Ser Gly Glu Trp Val Ala Leu Asp Asp Arg Cys Pro His Arg Leu
 115 120 125
 Ala Pro Leu Ser Glu Gly Arg Ile Asp Glu Thr Gly Cys Leu Gln Cys
 130 135 140
 Ser Tyr His Gly Trp Ser Phe Asp Gly Ser Gly Ala Cys Thr Arg Ile
 145 150 155 160
 Pro Gln Ala Ala Pro Glu Gly Pro Glu Ala Lys Ala Val Arg Ser Pro
 165 170 175
 Lys Ala Cys Ala Ile Lys Phe Pro Thr Leu Val Ser Gln Gly Leu Leu
 180 185 190

Phe Val Trp Pro Asp Glu Asn Gly Trp Glu Lys Ala Thr Ala Thr Lys
 195 200 205
 Pro Pro Met Leu Pro Lys Glu Phe Glu Asp Pro Ala Phe Ser Thr Val
 210 215 220
 Thr Ile Gln Arg Asp Leu Tyr Tyr Gly Tyr Asp Thr Leu Met Glu Asn
 225 230 235 240
 Val Ser Asp Pro Ser His Ile Glu Phe Ala Xaa His Lys Val Thr Gly
 245 250 255
 Arg Arg Asp Arg Ala Arg Pro Leu Pro Phe Lys Met Glu Ser Ser Gly
 260 265 270
 Ala Trp Gly Tyr Ser Gly Ser Asn Ser Gly Asn Pro Arg Ile Ser Ala
 275 280 285
 Thr Phe Val Ala Pro Cys Tyr Ala Leu Asn Lys Ile Glu Ile Asp Thr
 290 295 300
 Lys Leu Pro Ile Phe Gly Asp Gln Lys Trp Val Ile Trp Ile Cys Ser
 305 310 315 320
 Phe Asn Ile Pro Met Ala Pro Gly Lys Thr Arg Ser Ile Val Cys Ser
 325 330 335
 Ala Arg Asn Phe Phe Gln Phe Ser Met Pro Gly Lys Ala Trp Trp Gln
 340 345 350
 Leu Val Pro Arg Trp Tyr Glu His Trp Thr Ser Asn Leu Val Tyr Asp
 355 360 365
 Gly Asp Met Ile Val Leu Gln Gly Gln Glu Lys Ile Phe Leu Ser Ala
 370 375 380
 Ser Lys Glu Ser Ser Ala Asp Ile Asn Gln Gln Tyr Thr Lys Ile Thr
 385 390 395 400
 Phe Thr Pro Thr Gln Ala Asp Arg Phe Val Leu Ala Phe Arg Ala Trp
 405 410 415
 Leu Arg Lys Phe Gly Asn Ser Gln Pro Asp Trp Phe Gly Asn Pro Ser
 420 425 430
 Gln Glu Val Leu Pro Ser Thr Val Leu Ser Lys Arg Glu Met Leu Asp
 435 440 445
 Arg Tyr Glu Gln His Thr Leu Lys Cys Ser Ser Cys Lys Gly Ala Tyr
 450 455 460
 Asn Ala Phe Gln Thr Leu Gln Lys Val Phe Met Gly Ala Thr Val Ala
 465 470 475 480
 Val Leu Leu Leu Leu
 485

<210> 31
 <211> 1930

<212> DNA
<213> Glycine max

<400> 31
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 ctcatattgaa cctctataaaa caaattttca aaccttaaca ccttacgaaa atcaactaaa 120
 gaaaaccatt gatggcgctc cctcactcca tctctgcctt agccaccaca ctacactct 180
 cctccccaat aaccaaacc cataaagtta acccctttcc cttttcctcg aaccgaaatt 240
 cacaattttt aacgaaacaa acgcgaccca gaagcagaag aaacctctcc ctaacccctg 300
 cacgcgttgc ggccgccccc tcaacggttg aagccgatcg attataccca gaggcgaaa 360
 ataacgaaac tgaggaagag tttagcgacg agagctcttc ctctaaattc acttggaggg 420
 atcactggta cctgtctctg ttaattgaag atctgaaccc tctcttgccc acaccgtttc 480
 agcttctggg tctgtgaaatc gtgctctggt acgacaagtc catttcccaa tgggttgctt 540
 ttgatgacaa atgcccccat cgtcttgccc ctttatctga agggaggata gatgaagatg 600
 ggaagttgca gtgttcttat catgggtggt cttttgatgg gtgtggatct tgtgttaaga 660
 ttcttcaggc ttcactctgaa ggccccgaag cacgtgctat tggatctcct aaagcatgtg 720
 ccactaggtt ccctaccttg gtgtcccagg gtttgcctct tgtatgggtg gatgagaatt 780
 gttgggagaa agcaaaaggc tccaaccctc caatgtttcc tgatgacttt gacaaaccgg 840
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 atgtctctga tcttctctac attgagtttg ctcatcaciaa ggtcacggga aggagagaca 960
 gagccaaacc tctgccattc aagatggatt ctctgtgttc atggggcttc tctggagcta 1020
 atgaaggga cccacagatc agtgccaagt ttgttgacc atgttatatg atgaacaaga 1080
 ttgagattga taccaaactc cctgtagttg gtgaccagaa atgggtagta tggatatgtt 1140
 ccttcaatgt ccccatggca cctggtaaga ctgcctccat tgtttgcagt gctcgaaact 1200
 tcttcaggtt ctcaagtcca gggcctgcct ggtggcaagt caactgagta atcttactgt 1260
 ttgcattcaa ttttaaacaa tgcatacatg taactcaggt cgttcctaga tggtagagc 1320
 attggacttc aaataaggta tatgatggag acatgattgt ccttcaaggt caagagaaaa 1380
 tcttcttttc agaaaccaag gaaggtggtg acattaacaa acagtacaca aacatcacct 1440
 tcacaccaac acaggcagat cgctttgtct tggcattccg aaattggctg aggcgacatg 1500
 gcaatggcca accagaatgg tttggaacaa gcagcgacca gccattgcca tcaactgtgt 1560
 tatcaaaacg tcagatgttg gatagatttg aacagcacac tctcaagtgt tcatcatgta 1620
 aagcagcata tgagggattc caaacatggc agaaagtcc aattggggca acagttgtgt 1680
 tttgtgcaac atcagggatc ccatcagatt tccagttgct tgtacttttg gctggactcg 1740
 cagttgtcag cgcagccata gcttttgccc taaaccaact ccaaaagaat tttgaattcg 1800
 tggattacgt gcatgcgga atcgattaag cacgtccctc caaaggaact tcaactagtt 1860
 agttgtaaat agagttgaag acaagtacat gtacactagt attttgatga aaagagctca 1920
 aatctacctt 1930

<210> 32
 <211> 563
 <212> PRT
 <213> Glycine max

<400> 32
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 20 25 30
 Ser Asn Arg Asn Ser Gln Phe Leu Thr Lys Gln Thr Arg Pro Arg Ser
 35 40 45
 Arg Arg Asn Leu Ser Leu Thr Pro Ala Arg Val Ala Ala Pro Pro Ser
 50 55 60
 Thr Val Glu Ala Asp Arg Leu Tyr Pro Glu Ala Glu Asn Asn Glu Thr
 65 70 75 80

Glu	Glu	Glu	Phe	Ser	Asp	Glu	Ser	Ser	Ser	Lys	Phe	Thr	Trp	Arg	Asp
				85					90					95	
His	Trp	Tyr	Pro	Val	Ser	Leu	Ile	Glu	Asp	Leu	Asn	Pro	Leu	Leu	Pro
			100					105					110		
Thr	Pro	Phe	Gln	Leu	Leu	Gly	Arg	Glu	Ile	Val	Leu	Trp	Tyr	Asp	Lys
		115					120					125			
Ser	Ile	Ser	Gln	Trp	Val	Ala	Phe	Asp	Asp	Lys	Cys	Pro	His	Arg	Leu
	130					135					140				
Ala	Pro	Leu	Ser	Glu	Gly	Arg	Ile	Asp	Glu	Asp	Gly	Lys	Leu	Gln	Cys
					150					155					160
Ser	Tyr	His	Gly	Trp	Ser	Phe	Asp	Gly	Cys	Gly	Ser	Cys	Val	Lys	Ile
				165					170					175	
Pro	Gln	Ala	Ser	Ser	Glu	Gly	Pro	Glu	Ala	Arg	Ala	Ile	Gly	Ser	Pro
			180					185					190		
Lys	Ala	Cys	Ala	Thr	Arg	Phe	Pro	Thr	Leu	Val	Ser	Gln	Gly	Leu	Leu
		195					200					205			
Phe	Val	Trp	Ala	Asp	Glu	Asn	Gly	Trp	Glu	Lys	Ala	Lys	Ala	Ser	Asn
	210					215					220				
Pro	Pro	Met	Phe	Pro	Asp	Asp	Phe	Asp	Lys	Pro	Glu	Phe	Pro	Thr	Val
					230					235					240
Asn	Ile	Gln	Arg	Asp	Leu	Phe	Tyr	Gly	Tyr	Asp	Thr	Leu	Met	Glu	Asn
				245					250					255	
Val	Ser	Asp	Pro	Ser	His	Ile	Glu	Phe	Ala	His	His	Lys	Val	Thr	Gly
			260					265					270		
Arg	Arg	Asp	Arg	Ala	Lys	Pro	Leu	Pro	Phe	Lys	Met	Asp	Ser	Arg	Gly
		275					280					285			
Ser	Trp	Gly	Phe	Ser	Gly	Ala	Asn	Glu	Gly	Asn	Pro	Gln	Ile	Ser	Ala
	290					295					300				
Lys	Phe	Val	Ala	Pro	Cys	Tyr	Met	Met	Asn	Lys	Ile	Glu	Ile	Asp	Thr
	305				310					315					320
Lys	Leu	Pro	Val	Val	Gly	Asp	Gln	Lys	Trp	Val	Val	Trp	Ile	Cys	Ser
				325					330					335	
Phe	Asn	Val	Pro	Met	Ala	Pro	Gly	Lys	Thr	Arg	Ser	Ile	Val	Cys	Ser
			340					345					350		
Ala	Arg	Asn	Phe	Phe	Gln	Phe	Ser	Val	Pro	Gly	Pro	Ala	Trp	Trp	Gln
		355					360					365			
Val	Asn	Val	Ile	Leu	Leu	Phe	Ala	Phe	Asn	Phe	Lys	Gln	Cys	Ile	His
	370					375					380				
Val	Thr	Gln	Val	Val	Pro	Arg	Trp	Tyr	Glu	His	Trp	Thr	Ser	Asn	Lys
	385				390					395					400

Val Tyr Asp Gly Asp Met Ile Val Leu Gln Gly Gln Glu Lys Ile Phe
 405 410 415
 Leu Ser Glu Thr Lys Glu Gly Gly Asp Ile Asn Lys Gln Tyr Thr Asn
 420 425 430
 Ile Thr Phe Thr Pro Thr Gln Ala Asp Arg Phe Val Leu Ala Phe Arg
 435 440 445
 Asn Trp Leu Arg Arg His Gly Asn Gly Gln Pro Glu Trp Phe Gly Asn
 450 455 460
 Ser Ser Asp Gln Pro Leu Pro Ser Thr Val Leu Ser Lys Arg Gln Met
 465 470 475 480
 Leu Asp Arg Phe Glu Gln His Thr Leu Lys Cys Ser Ser Cys Lys Ala
 485 490 495
 Ala Tyr Glu Gly Phe Gln Thr Trp Gln Lys Val Leu Ile Gly Ala Thr
 500 505 510
 Val Val Phe Cys Ala Thr Ser Gly Ile Pro Ser Asp Phe Gln Leu Arg
 515 520 525
 Val Leu Leu Ala Gly Leu Ala Val Val Ser Ala Ala Ile Ala Phe Ala
 530 535 540
 Leu Asn Gln Leu Gln Lys Asn Phe Glu Phe Val Asp Tyr Val His Ala
 545 550 555 560

Glu Ile Asp

<210> 33
 <211> 555
 <212> DNA
 <213> Triticum aestivum

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<220>
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 <222> (252)

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 <400> 33
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 ctctctcccc gcgccaggc ccagcccttg ctcccgctcc ccaccggcgt ccaagcaccc 120
 agcgtcaggc cccaactcgt cccgcggcga cgggcgcgcc gccaccgcaa cggggcccgcg 180


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cggatgctgc cggcctcggc cgtggcgctcc gagtcgccgt ggacggancca ggagcccgcca 240
tccggggaga angaggagcg gtccgactgg ctggaccagt ggtaccacctt cgcccccggtg 300
gaggacctgg acccggcgcg cccacggcaa atgggtgctgg gatccgcgtg gtanctggta 360
caacgcggng ccggcgaatg gcgctgttca caccgtgccc gnacgcctgg cncgnetcga 420
gggcgcatca caaaaggcgg ncagtcgtta cacgggtggn ctcacgncgc gggctgaatt 480
ancccaggcc cgcctcggca acngnaaca aaacagggnn gtgnttaacc gtctgtgana 540
naanttgtgt ctccn 555

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<210> 34
<211> 144
<212> PRT
<213> Triticum aestivum

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<220>
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<222> (62)

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<220>
<221> UNSURE
<222> (70)

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<220>
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<222> (104)

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<220>
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<222> (124)..(125)

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<220>
<221> UNSURE
<222> (140)

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<220>
<221> UNSURE
<222> (142)

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<400> 34
Met Asp Pro Leu Arg Leu Leu Leu Pro Arg Ala Gln Ala Gln Pro Leu
  1              5              10              15
Leu Pro Leu Pro Thr Gly Val Gln Ala Pro Ser Val Arg Pro Gln Leu
              20              25              30
Val Pro Arg Arg Arg Ala Arg Arg His Arg Asn Gly Ala Ala Arg Met
      35              40              45
Leu Pro Ala Ser Ala Val Ala Ser Glu Ser Pro Trp Thr Xaa Gln Glu
      50              55              60
Pro Pro Ser Gly Glu Xaa Glu Glu Arg Phe Asp Trp Leu Asp Gln Trp
      65              70              75              80
Tyr Pro Phe Ala Pro Val Glu Asp Leu Asp Pro Ala Arg Pro Arg Gln
              85              90              95
Met Val Leu Gly Ser Ala Trp Xaa Leu Val Gln Arg Gly Ala Gly Glu
      100              105              110

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Trp Arg Cys Ser His Arg Ala Arg Thr Pro Gly Xaa Xaa Arg Gly Arg
 115 120 125

Ile Thr Lys Gly Gly Gln Ser Leu His Gly Trp Xaa His Xaa Ala Gly
 130 135 140

<210> 35
 <211> 1864
 <212> DNA
 <213> Triticum aestivum

<400> 35
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 ccgaggaagg aaggaaaggc agacgaaatg ccggtgctgg cgatgccgtc cgctccctc 180
 cccctcctct ccccggggac accggccgct gctgcgcccg tcgacctcc cggtccctc 240
 tctcggcagc ggcatcctcc gcgtggccgc gccgacgtcg gtccccggcg aggcggagcg 300
 ggcggaggag ccgagcacga gcacgagcac ctgcctgaa tcgtccgggg agaagtctgt 360
 gtggcgggac cactggtacc cgtctcgtc cgtggaggac ctggacccgc gcgtgccac 420
 cccgttccag ctctcaacc gcgacctcgt catctggaac gaccccaact ccggcgactg 480
 ggtcgcgtc gacgaccgtt gcccgaccg cctcgcctcg ctctcgagg ggcgatcga 540
 cgagacgggc ggctgcagt gtcctacca cggctggtcc ttcgacggct ccggcgctg 600
 caccagatc ccgagggccg gcgccgagg gcccgaggcc cggcggtgc gctcgccag 660
 ggctgcgccc accaagttcc ccacctcct ctcccagggc ctgctcttcg tctggcctga 720
 cgagaatgga tgggacaagg ccaaggccac caagcctcca atgctgccga aggagtctga 780
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 gatggagaac gtctctgatc cctcgcatac agaatttgct caccacaagg tcactggacg 900
 aagagataga gccaaagcctt tgccatttaa aatggaatca agtggcgcat ggggatattc 960
 aggggcaaatt accggcaatc ctgcgcatc tgcaactttc gaggcccctt gctatgcact 1020
 gaacaaaata gagattgaca ccaaattacc gattgtggga gatcagaaat gggtcatatg 1080
 gatttgctcc ttcaacattc caatggcccc agggaaaact cgttctattg tctgtagtgc 1140
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 gtacgaacat tggacctcaa atttggtcta cgacggcgat atgatcgtgc ttcaaggcca 1260
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 tttcgtgttt gtggactacg tgcacgctga cattgattga ttagggagat aaacattagt 1740
 tatttttgtg aggatctggt gtggtgtggt gtggagacat cccacgatca atcatgtgca 1800
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 gttt 1864

<210> 36
 <211> 487
 <212> PRT
 <213> Triticum aestivum

<400> 36
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Glu Glu Pro Ser Thr Ser Thr Ser Thr Ser Pro Glu Ser Ser Gly Glu
 20 25 30

Lys Phe Val Trp Arg Asp His Trp Tyr Pro Val Ser Leu Val Glu Asp
 35 40 45

Leu Asp Pro Arg Val Pro Thr Pro Phe Gln Leu Leu Asn Arg Asp Leu
 50 55 60
 Val Ile Trp Asn Asp Pro Asn Ser Gly Asp Trp Val Ala Leu Asp Asp
 65 70 75 80
 Arg Cys Pro His Arg Leu Ala Pro Leu Ser Glu Gly Arg Ile Asp Glu
 85 90 95
 Thr Gly Gly Leu Gln Cys Ser Tyr His Gly Trp Ser Phe Asp Gly Ser
 100 105 110
 Gly Ala Cys Thr Arg Ile Pro Gln Ala Ala Pro Glu Gly Pro Glu Ala
 115 120 125
 Arg Ala Val Arg Ser Pro Arg Ala Cys Ala Thr Lys Phe Pro Thr Leu
 130 135 140
 Leu Ser Gln Gly Leu Leu Phe Val Trp Pro Asp Glu Asn Gly Trp Asp
 145 150 155 160
 Lys Ala Lys Ala Thr Lys Pro Pro Met Leu Pro Lys Glu Phe Asp Asp
 165 170 175
 Pro Ala Phe Ser Thr Val Thr Ile Gln Arg Asp Leu Phe Tyr Gly Tyr
 180 185 190
 Asp Thr Leu Met Glu Asn Val Ser Asp Pro Ser His Ile Glu Phe Ala
 195 200 205
 His His Lys Val Thr Gly Arg Arg Asp Arg Ala Lys Pro Leu Pro Phe
 210 215 220
 Lys Met Glu Ser Ser Gly Ala Trp Gly Tyr Ser Gly Ala Asn Thr Gly
 225 230 235 240
 Asn Pro Arg Ile Thr Ala Thr Phe Glu Ala Pro Cys Tyr Ala Leu Asn
 245 250 255
 Lys Ile Glu Ile Asp Thr Lys Leu Pro Ile Val Gly Asp Gln Lys Trp
 260 265 270
 Val Ile Trp Ile Cys Ser Phe Asn Ile Pro Met Ala Pro Gly Lys Thr
 275 280 285
 Arg Ser Ile Val Cys Ser Ala Arg Asn Phe Phe Gln Phe Thr Met Pro
 290 295 300
 Gly Lys Ala Trp Trp Gln Phe Val Pro Arg Trp Tyr Glu His Trp Thr
 305 310 315 320
 Ser Asn Leu Val Tyr Asp Gly Asp Met Ile Val Leu Gln Gly Gln Glu
 325 330 335
 Lys Val Phe Leu Ser Ala Ser Lys Glu Ser Ser Ala Asp Val Asn Gln
 340 345 350
 Gln Tyr Thr Lys Leu Thr Phe Thr Pro Thr Gln Ala Asp Arg Phe Val
 355 360 365

Leu Ala Phe Arg Ala Trp Leu Arg Lys Phe Gly Asn Ser Gln Pro Asp
 370 375 380
 Trp Tyr Gly Ser Pro Ser Gln Asp Ala Leu Pro Ser Thr Val Leu Ser
 385 390 395 400
 Lys Arg Glu Met Leu Asp Arg Tyr Glu Gln His Thr Leu Lys Cys Ser
 405 410 415
 Ser Cys Arg Gly Ala His Lys Ala Phe Gln Thr Leu Gln Lys Val Phe
 420 425 430
 Met Gly Ala Thr Val Val Phe Gly Ala Thr Ser Gly Ile Pro Ala Asp
 435 440 445
 Val Gln Leu Arg Ile Leu Leu Gly Ala Gly Ala Leu Val Ser Ala Ala
 450 455 460
 Leu Ala Tyr Val Phe Tyr Asp Arg Gln Lys His Phe Val Phe Val Asp
 465 470 475 480
 Tyr Val His Ala Asp Ile Asp
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 <212> PRT
 <213> Arabidopsis thaliana

<400> 37

Met Glu Asp Pro Asp Ile Lys Arg Cys Lys Leu Ser Cys Val Ala Thr
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 Val Asp Asp Val Ile Glu Gln Val Met Thr Tyr Ile Thr Asp Pro Lys
 20 25 30
 Asp Arg Asp Ser Ala Ser Leu Val Cys Arg Arg Trp Phe Lys Ile Asp
 35 40 45
 Ser Glu Thr Arg Glu His Val Thr Met Ala Leu Cys Tyr Thr Ala Thr
 50 55 60
 Pro Asp Arg Leu Ser Arg Arg Phe Pro Asn Leu Arg Ser Leu Lys Leu
 65 70 75 80
 Lys Gly Lys Pro Arg Ala Ala Met Phe Asn Leu Ile Pro Glu Asn Trp
 85 90 95
 Gly Gly Tyr Val Thr Pro Trp Val Thr Glu Ile Ser Asn Asn Leu Arg
 100 105 110
 Gln Leu Lys Ser Val His Phe Arg Arg Met Ile Val Ser Asp Leu Asp
 115 120 125
 Leu Asp Arg Leu Ala Lys Ala Arg Ala Asp Asp Leu Glu Thr Leu Lys
 130 135 140
 Leu Asp Lys Cys Ser Gly Phe Thr Thr Asp Gly Leu Leu Ser Ile Val
 145 150 155 160

Thr His Cys Arg Lys Ile Lys Thr Leu Leu Met Glu Glu Ser Ser Phe
 165 170 175
 Ser Glu Lys Asp Gly Lys Trp Leu His Glu Leu Ala Gln His Asn Thr
 180 185 190
 Ser Leu Glu Val Leu Asn Phe Tyr Met Thr Glu Phe Ala Lys Ile Ser
 195 200 205
 Pro Lys Asp Leu Glu Thr Ile Ala Arg Asn Cys Arg Ser Leu Val Ser
 210 215 220
 Val Lys Val Gly Asp Phe Glu Ile Leu Glu Leu Val Gly Phe Phe Lys
 225 230 235 240
 Ala Ala Ala Asn Leu Glu Glu Phe Cys Gly Gly Ser Leu Asn Glu Asp
 245 250 255
 Ile Gly Met Pro Glu Lys Tyr Met Asn Leu Val Phe Pro Arg Lys Leu
 260 265 270
 Cys Arg Leu Gly Leu Ser Tyr Met Gly Pro Asn Glu Met Pro Ile Leu
 275 280 285
 Phe Pro Phe Ala Ala Gln Ile Arg Lys Leu Asp Leu Leu Tyr Ala Leu
 290 295 300
 Leu Glu Thr Glu Asp His Cys Thr Leu Ile Gln Lys Cys Pro Asn Leu
 305 310 315 320
 Glu Val Leu Glu Thr Arg Asn Val Ile Gly Asp Arg Gly Leu Glu Val
 325 330 335
 Leu Ala Gln Tyr Cys Lys Gln Leu Lys Arg Leu Arg Ile Glu Arg Gly
 340 345 350
 Ala Asp Glu Gln Gly Met Glu Asp Glu Glu Gly Leu Val Ser Gln Arg
 355 360 365
 Gly Leu Ile Ala Leu Ala Gln Gly Cys Gln Glu Leu Glu Tyr Met Ala
 370 375 380
 Val Tyr Val Ser Asp Ile Thr Asn Glu Ser Leu Glu Ser Ile Gly Thr
 385 390 395 400
 Tyr Leu Lys Asn Leu Cys Asp Phe Arg Leu Val Leu Leu Asp Arg Glu
 405 410 415
 Glu Arg Ile Thr Asp Leu Pro Leu Asp Asn Gly Val Arg Ser Leu Leu
 420 425 430
 Ile Gly Cys Lys Lys Leu Arg Arg Phe Ala Phe Tyr Leu Arg Gln Gly
 435 440 445
 Gly Leu Thr Asp Leu Gly Leu Ser Tyr Ile Gly Gln Tyr Ser Pro Asn
 450 455 460
 Val Arg Trp Met Leu Leu Gly Tyr Val Gly Glu Ser Asp Glu Gly Leu
 465 470 475 480

Met Glu Phe Ser Arg Gly Cys Pro Asn Leu Gln Lys Leu Glu Met Arg
 485 490 495

Gly Cys Cys Phe Ser Glu Arg Ala Ile Ala Ala Ala Val Thr Lys Leu
 500 505 510

Pro Ser Leu Arg Tyr Leu Trp Val Gln Gly Tyr Arg Ala Ser Met Thr
 515 520 525

Gly Gln Asp Leu Met Gln Met Ala Arg Pro Tyr Trp Asn Ile Glu Leu
 530 535 540

Ile Pro Ser Arg Arg Val Pro Glu Val Asn Gln Gln Gly Glu Ile Arg
 545 550 555 560

Glu Met Glu His Pro Ala His Ile Leu Ala Tyr Tyr Ser Leu Ala Gly
 565 570 575

Gln Arg Thr Asp Cys Pro Thr Thr Val Arg Val Leu Lys Glu Pro Ile
 580 585 590

<210> 38

<211> 520

<212> PRT

<213> Zea mays

<400> 38

Met Arg Ala Thr Ile Pro Ala Leu Ser Leu Leu Val Thr Pro Arg Leu
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Pro Ser Leu Ala Val Pro Leu Ala Gly Gly Arg Leu Arg Glu Gly Gly
 20 25 30

Arg Ser Arg Thr Arg Leu Arg Val Ala Ala Pro Thr Ser Val Pro Gly
 35 40 45

Glu Ala Ala Glu Gln Ala Glu Pro Ser Thr Ser Ala Pro Glu Ser Gly
 50 55 60

Glu Lys Phe Ser Trp Arg Asp His Trp Tyr Pro Val Ser Leu Val Glu
 65 70 75 80

Asp Leu Asp Pro Ser Arg Pro Thr Pro Phe Gln Leu Leu Asn Arg Asp
 85 90 95

Leu Val Ile Trp Lys Glu Pro Lys Ser Gly Glu Trp Val Ala Leu Asp
 100 105 110

Asp Arg Cys Pro His Arg Leu Ala Pro Leu Ser Glu Gly Arg Ile Asp
 115 120 125

Glu Thr Gly Cys Leu Gln Cys Ser Tyr His Gly Trp Ser Phe Asp Gly
 130 135 140

Ser Gly Ala Cys Thr Lys Ile Pro Gln Ala Met Pro Glu Gly Pro Glu
 145 150 155 160

Ala Arg Ala Val Arg Ser Pro Lys Ala Cys Ala Ile Lys Phe Pro Thr
 165 170 175

Leu Val Ser Gln Gly Leu Leu Phe Val Trp Pro Asp Glu Asn Gly Trp
 180 185 190
 Glu Lys Ala Ala Ala Thr Lys Pro Pro Met Leu Pro Lys Glu Phe Glu
 195 200 205
 Asp Pro Ala Phe Ser Thr Val Thr Ile Gln Arg Asp Leu Phe Tyr Gly
 210 215 220
 Tyr Asp Thr Leu Met Glu Asn Val Ser Asp Pro Ser His Ile Glu Phe
 225 230 235 240
 Ala His His Lys Val Thr Gly Arg Arg Asp Arg Ala Arg Pro Leu Thr
 245 250 255
 Phe Arg Met Glu Ser Ser Gly Ala Trp Gly Tyr Ser Gly Ala Asn Ser
 260 265 270
 Gly Asn Pro Arg Ile Thr Ala Thr Phe Glu Ala Pro Cys Tyr Ala Leu
 275 280 285
 Asn Lys Ile Glu Ile Asp Thr Lys Leu Pro Ile Phe Gly Asp Gln Lys
 290 295 300
 Trp Val Ile Trp Ile Cys Ser Phe Asn Ile Pro Met Ala Pro Gly Lys
 305 310 315 320
 Thr Arg Ser Ile Val Cys Ser Ala Arg Asn Phe Phe Gln Phe Thr Met
 325 330 335
 Pro Gly Lys Ala Trp Trp Gln Leu Val Pro Arg Trp Tyr Glu His Trp
 340 345 350
 Thr Ser Asn Leu Val Tyr Asp Gly Asp Met Ile Val Leu Gln Gly Gln
 355 360 365
 Glu Lys Ile Phe Leu Ala Ala Thr Lys Glu Ser Ser Thr Asp Ile Asn
 370 375 380
 Gln Gln Tyr Thr Lys Ile Thr Phe Thr Pro Thr Gln Ala Asp Arg Phe
 385 390 395 400
 Val Leu Ala Cys Arg Thr Trp Leu Arg Lys Phe Gly Asn Ser Gln Pro
 405 410 415
 Glu Trp Phe Gly Asn Pro Thr Gln Glu Ala Leu Pro Ser Thr Val Leu
 420 425 430
 Ser Lys Arg Glu Met Leu Asp Arg Tyr Glu Gln Leu Ser Leu Lys Cys
 435 440 445
 Ser Ser Cys Lys Gly Ala Tyr Asn Ala Phe Gln Asn Leu Gln Lys Val
 450 455 460
 Phe Met Gly Ala Thr Val Val Cys Cys Ala Ala Ala Gly Ile Pro Pro
 465 470 475 480
 Asp Val Gln Leu Arg Leu Leu Ile Gly Ala Ala Ala Leu Val Ser Ala
 485 490 495

Ala Ile Ala Tyr Ala Phe His Glu Leu Gln Lys Asn Phe Val Phe Val
500 505 510

Asp Tyr Val His Ala Asp Ile Asp
515 520